

**FIG. 1**



SECRET

310

LIP TAG	PREDICTOR

FULL CHT

FIG. 3

LIP TAG

IMPLICIT-PRED CHT

FIG. 4

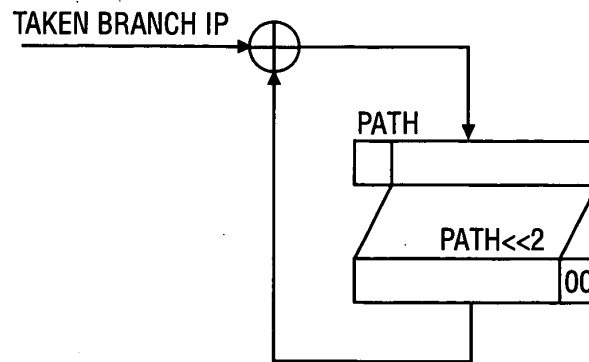
PREDICTOR

TAGLESS CHT

FIG. 5

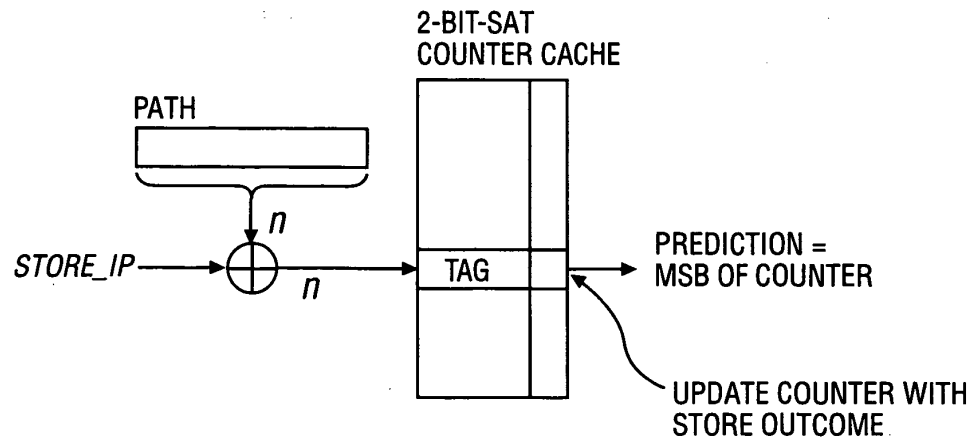
400





PATH UPDATE.  $\text{NEW\_PATH} = (\text{OLD\_PATH} \ll 2) \text{ XOR TAKEN\_BRANCH\_IP}$

**FIG. 9**



PREDICTOR INDEXING:  $\text{INDEX} = \text{STORE\_IP XOR PATH}$

**FIG. 10**

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**FIG. 11**

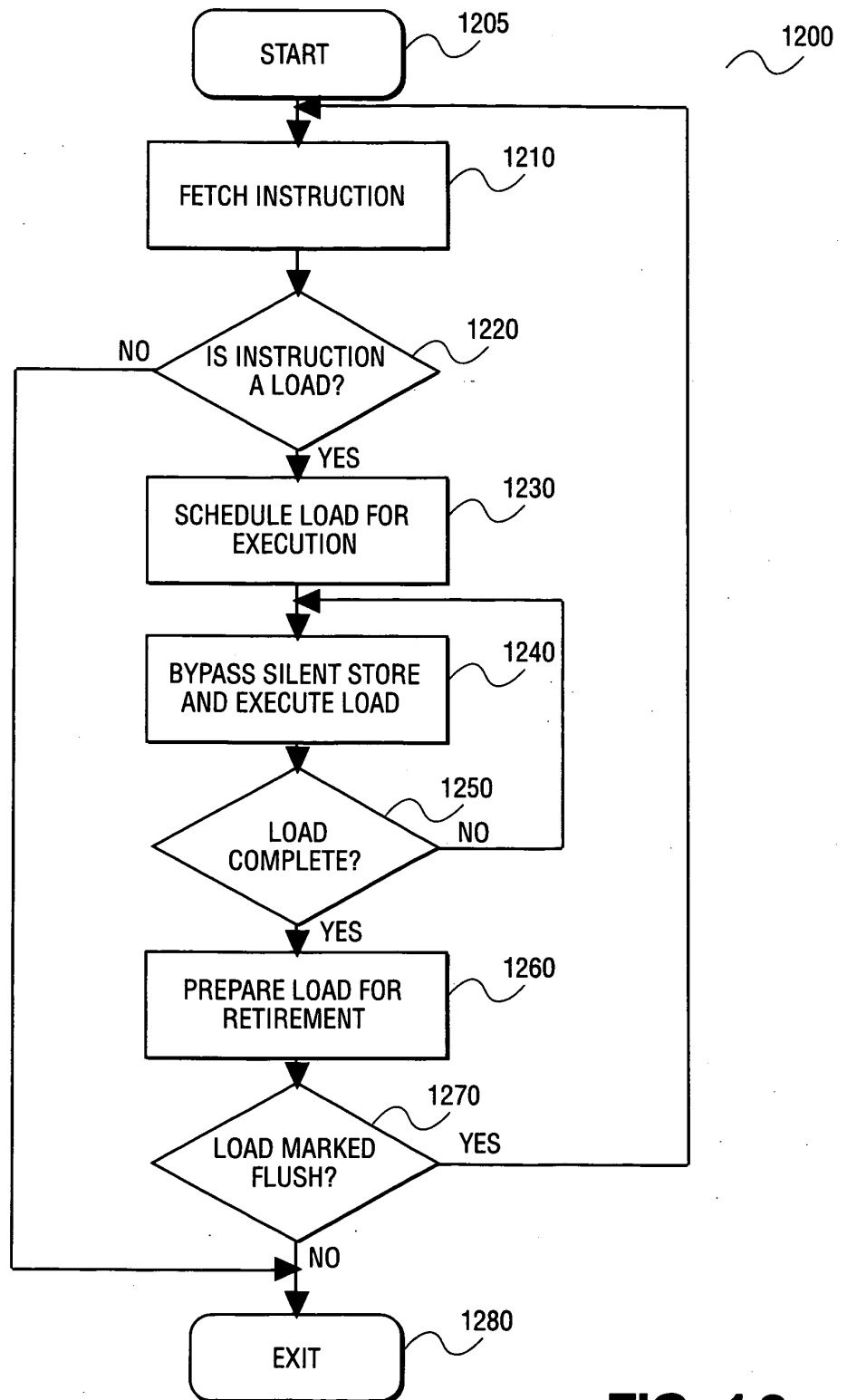
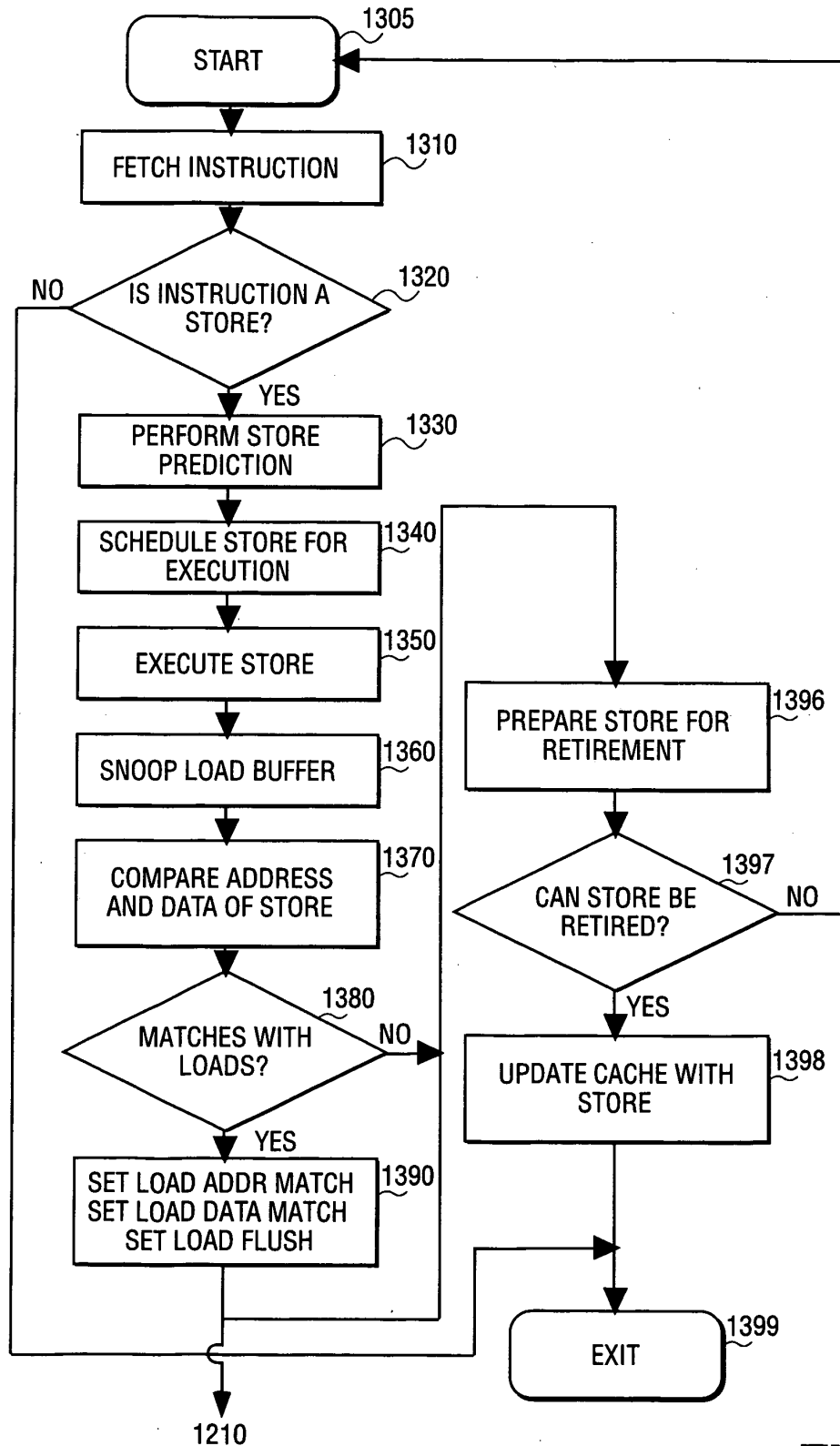


FIG. 12



**FIG. 13**